Discovering Cell Mechanisms

Journal of Cell Biology in 1964. In this final chapter, I will explore in some depth the decision making that shaped these institutions and, through them, the field of cell biology in the United States and elsewhere.²

1. CREATION OF THE JOURNAL OF BIOPHYSICAL AND BIOCHEMICAL CYTOLOGY

The advent of electron microscopy was clearly one impetus for the creation of the *Journal of Biophysical and Biochemical Cytology*. The high resolution of the micrographs produced by the early 1950s required the capacity, which only a few journals possessed, to produce very high quality plates. In particular the *Anatomical Record*, one of the major journals interested in morphological issues, lacked the ability to produce sufficiently good plates.³ Pioneers in employing electron microscopy for cell structures were therefore very interested in such a journal. Those journals that could produce the quality plates were often not interested in publishing numerous electron micrographs. This was borne out both in the event that most directly precipitated the creation of the new journal and in the subsequent correspondence. Porter, whose research I have discussed extensively in previous chapters, wrote a paper with Don Fawcett (Fawcett & Porter, 1953) identifying the 9 + 2 structure of cilia, which was rejected by the *Journal of Experimental Medicine* (published at Rockefeller).⁴ Porter attributed the idea of starting a new journal to Herbert

- ² In part my decision to focus on these two institutions was guided by the fact that detailed records were available through the Rockefeller Archive Center and the American Society for Cell Biology's national office. I am grateful to both of these institutions and their staffs for generous and skilled assistance.
- ³ In December 1953 Stanley Bennett, chair of the anatomy department at the University of Washington, wrote letters to the editors of both the *Anatomical Record* and the *American Journal of Anatomy* (both published by the Wistar Institute) complaining about the poor quality of halftone engravings appearing in those journals.
- ⁴ Porter commented on this episode in a short account he wrote of the birth of the *Journal of Biophysical and Biochemical Cytology* on 10 October 1959: "Many of the early papers were published in the Journal of Experimental Medicine edited largely by Peyton Rous, who had the good sense to appreciate the significance of what was coming. The other editors of the J.E.M. and most especially Rene Dubos did not feel that the character of the J.E.M. should be changed to accomodate (sic) a lot of reports on morphological studies. A real storm developed around the one on cilia (Fawcett-Porter, 1954) submitted first to the J.E.M. in the early summer of 1953. Rous was away at the time, so Dubos had the final say and the paper was refused. I recall that Vincent Dole in giving me the manuscript said he thought it an interesting and important paper but not for the J.E.M. He went on to say he thought the few of us interested in this new area should organize a new journal. Later that summer the same paper was submitted to the J.G.P. [*Journal of General Physiology*, another Rockefeller journal] and again rejected as unsuitable in content. I later, in September, discussed the matter with Dr. Gasser who had then retired and he